

Name: _____

ml1112paper: Solve by factoring (v10)

1. Solve the equation

$$x^2 - x - 42 = 0$$

$$(x - 7)(x + 6) = 0$$

$$x = -6$$

$$x = 7$$

2. Solve the equation

$$x^2 - 10x + 16 = 0$$

$$(x - 2)(x - 8) = 0$$

$$x = 8$$

$$x = 2$$

3. Solve the equation

$$6x^2 + 10x + 20 = 5x^2 - x + 2$$

$$x^2 + 11x + 18 = 0$$

$$(x + 2)(x + 9) = 0$$

$$x = -9$$

$$x = -2$$

4. Solve the equation

$$9x^2 + 13x + 31 = 8x^2 + x - 1$$

$$x^2 + 12x + 32 = 0$$

$$(x + 4)(x + 8) = 0$$

$$x = -8$$

$$x = -4$$

5. Solve the equation

$$3x^2 - 19x - 72 = 0$$

$$(3x + 8)(x - 9) = 0$$

$$x = 9$$

$$x = \frac{-8}{3}$$

6. Solve the equation

$$2x^2 - 13x + 15 = 0$$

$$(2x - 3)(x - 5) = 0$$

$$x = 5$$

$$x = \frac{3}{2}$$

7. Solve the equation

$$10x^2 - 13x + 27 = 8x^2 + 4x - 9$$

$$2x^2 - 17x + 36 = 0$$

$$(2x - 9)(x - 4) = 0$$

$$x = 4$$

$$x = \frac{9}{2}$$

8. Solve the equation

$$10x^2 - x - 57 = 8x^2 - 4x - 3$$

$$2x^2 + 3x - 54 = 0$$

$$(2x - 9)(x + 6) = 0$$

$$x = -6$$

$$x = \frac{9}{2}$$